

Appl. No. 09/982,544  
Amdt. date September 8, 2005

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

- 1 1-16. (canceled)
- 1 17. (Currently amended) The ~~powder of claim 1~~ method of claim 29 wherein  
2 said particles deliver said agent into the bloodstream of said subject.
- 1 18. (canceled)
- 1 19. (Currently amended) The ~~powder of claim 1~~ method of claim 29, wherein  
2 the aerogel ~~particle contains~~ particles contain pores of about 1 to 100 nm.
- 1 20. (Currently amended) The ~~powder of claim 1~~ method of claim 29, wherein  
2 the aerogel ~~particle has~~ particles have a surface area of about 100 to 1,200 m<sup>2</sup>/g.
- 1 21. (canceled)
- 1 22. (Currently amended) The ~~powder of claim 1~~ method of claim 29, wherein  
2 the aerogel ~~particle has~~ particles have a particle size of about submicron up to about 3 microns.
- 1 23. (New) The ~~powder of claim 1~~ method of claim 29, wherein the aerogel  
2 ~~particle is~~ particles are a carrier selected from the group consisting of sugars and carbohydrates.
- 1 24. (canceled)
- 1 25. (canceled) The ~~powder of claim 1~~ method of claim 29, wherein said powder  
2 is prepared by the steps of (i) preparing porous gels of a carrier material which is soluble in  
3 pulmonary surfactant; (ii) soaking the porous gels in a solution of the therapeutic agent; (iii)  
4 removing the solvent and forming aerogels by supercritical drying; and (iv) converting the  
5 aerogels into powder.

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1                   26. (Currently amended)    The ~~powder of claim 1~~ method of claim 29, wherein  
2 the therapeutic agent is insulin.

1                   27. (Currently amended)    The ~~powder of claim 1~~ method of claim 29, wherein  
2 the therapeutic agent is methadone.

1                   28. (Currently amended)    The ~~powder of claim 1~~ method of claim 29, wherein  
2 the therapeutic agent is naltrexone.

1                   29. (Currently amended)    A method of treating a disease state responsive to  
2 treatment by a therapeutic agent comprising pulmonarily administering to the alveoli of a subject  
3 in need thereof a dispersible dry powder according to claim 1 comprising  
4 a therapeutically effective amount of a therapeutic agent in aerogel particles  
5 wherein said particles have a density of about 0.1 to 0.001 g/cc and particle size to permit them  
6 to reach the alveoli of a human subject's lungs upon inhalation.

1                   30. (Previously presented)   The method of claim 29, wherein the powder is  
2 prepared from an aerogel prepared by supercritical drying at a temperature of less than 40°C.

1                   31. (Previously presented)   The method of claim 30, wherein the powder is  
2 prepared from an aerogel prepared by co-gelling the therapeutic agent with a gel-forming  
3 material selected from the group consisting of sugars and carbohydrates.

1                   32-35. (canceled)

1                   36. (Currently amended)    A method of delivering a therapeutic agent to a  
2 subject, said method comprising administering to the alveoli of said subject a dispersible dry  
3 powder according to claim 1 comprising a therapeutically effective amount of said therapeutic  
4 agent in aerogel particles wherein said particles have a density of about 0.1 to 0.001 g/cc and  
5 particle size to permit them to reach the alveoli of a human subject's lungs upon inhalation as an  
6 inhalant.

1                   37. (Currently amended)    A method of delivering a therapeutic agent to the  
2 bloodstream of a subject, said method comprising administering to the alveoli of said subject a

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3 dispersible dry powder ~~according to claim 1~~ comprising a therapeutically effective amount of  
4 said therapeutic agent and aerogel particles wherein said particles have a density of about 0.1 to  
5 0.001 g/cc and particle size to permit them to reach the alveoli of a human subject's lungs upon  
6 inhalation as an inhalant.

1 38. (canceled)

1 39. (Currently amended) The ~~powder of claim 1~~ method of claim 29 wherein  
2 said agent is adsorbed onto the structure of said particles.

1 40. (Currently amended) The ~~powder of claim 1~~ method of claim 29 wherein  
2 said particles are directly prepared from said therapeutic agent.

1 41. (Currently amended) The ~~powder of claim 1~~ method of claim 29 wherein  
2 the structure of said particles comprise said therapeutic agent.

1 42. (Currently amended) The ~~powder of claim 1~~ method of claim 29 wherein  
2 said powder is formulated for quick introduction into the bloodstream and controlled release  
3 thereafter.

1 43. (Currently amended) The ~~powder of claim 1~~ method of claim 29 wherein  
2 the powder is formulated for slow release.

1 44. (canceled)

1 45. (New) The method of claim 36, wherein the powder is prepared from an  
2 aerogel prepared by supercritical drying at a temperature of less than 40°C.

1 46. (New) The method of claim 36, wherein the powder is prepared from an  
2 aerogel prepared by co-gelling the therapeutic agent with a gel-forming material selected from  
3 the group consisting of sugars and carbohydrates.

1 47. (New) The method of claim 36, wherein the aerogel particles contain  
2 pores of about 1 to 100 nm.

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1                    48. (New)     The method of claim 36, wherein the aerogel particles have a  
2 surface area of about 100 to 1,200 m<sup>2</sup>/g.

1                    49. (New)     The method of claim 36, wherein the aerogel particles have a  
2 particle size of about submicron up to about 3 microns.

1                    50. (New)     The method of claim 36, wherein the aerogel particles are a carrier  
2 selected from the group consisting of sugars and carbohydrates.

1                    51. (New)     The method of claim 36, wherein the therapeutic agent is insulin.

1                    52. (New)     The method of claim 36, wherein the therapeutic agent is  
2 methadone.

1                    53. (New)     The method of claim 36, wherein the therapeutic agent is  
2 naltrexone.